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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,449	06/04/2007	Yoshiichi Horikoshi	SON-3175	4477
23353 7590 10/07/2008 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER WALFORD, NATALIE K	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 10/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,449

Applicant(s)

HORIKOSHI ET AL.

Examiner

NATALIE K. WALFORD

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/18/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 7/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Soules et al. (US 6,809,477).

Regarding claim 13, Soules discloses a method for manufacturing a discharge lamp electrode (item 10) in figure 1, the method comprising: a winding step of winding a wire (item 30) to form a heater, said heater having a coil portion (item 30) and a first lead wire portion (item 60) and a second lead wire portion (item 62) that extend respectively from a rear end of the coil portion; a connection-reinforcing-member-welding (not labeled, at either end of lamp) step of welding the first lead wire portion of the heater to a first connection member of a connection-reinforcing member (see FIG. 1), and of welding the second lead wire portion of the heater to a second connection member of the connection-reinforcing member (see FIG. 1), said connection-reinforcing member including the first and second connection members with them being

integrated with each other by means of a coupling portion (not labeled); an application step of applying an electron emission material (item 32) to the heater in a condition where the heater is held by the connection-reinforcing member (see FIG. 1); a lead-in portion welding step of welding a first lead-in wire to the first connection member and a second lead-in wire to the second connection member (see FIG. 1); and a cutting step of cutting off the coupling portion from the connection-reinforcing member to separate the first and second connection members from each other (see FIG. 1).

Regarding claim 14, Soules discloses the method for manufacturing the discharge lamp electrode according to claim 13, wherein the winding step comprises: a first winding sub-step of winding a wire around a core wire (see FIGS. 2-4); and a second winding sub-step of spirally winding the wire that have been wound around the core wire without come into contact therewith (see FIGS. 2-4); and wherein a dissolving step of dissolving the core wire is performed after the connection-reinforcing-member-welding step (see FIGS. 2-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soules et al. (US 6,809,477) in view of McVey (US 4,464,603).

Regarding claim 1, Soules discloses a discharge lamp (item 10) in figure 1 comprising: an electrode including: a heater (item 24) constituted of a coil portion (item 30) and a first lead wire portion (item 60) and a second lead wire portion (item 62) that respectively connect the coil portion through a rear end of the coil portion, the heater having an electron emission material (item 32) applied thereto; and a connection-reinforcing member (not labeled, at either end of lamp) that has a first connection member for connecting the first lead wire portion (see FIG. 1), and a second connection member for connecting the second lead wire portion (see FIG. 1), while the first and second connection members integrated with each other by means of a coupling portion (not labeled) are separated from each other by cutting the coupling portion, each of the first and second connection members being composed of L-shaped plate member (see FIG. 1), wherein the connection-reinforcing member is supported by any one of the first and second connection members (see FIG. 1); wherein in the electrode, the first lead wire portion is connected to a first lead-in wire and the second lead wire portion is connected to the second lead-in wire (see FIG. 1), said first and second lead-in wires being provided on two opposed ends of a glass tube (item 12), in which a gas containing a light-emitting material is enclosed (column 3, lines 59-61) and to an interior of which fluorescent substance (item 16) is coated; and wherein the coil portion is arranged parallel to a tube axis of the glass tube (see FIG. 1), but does not expressly disclose a scattering-prevention member, which is a cylindrical sleeve whose both ends are open, for covering surrounding of the coil portion, said both open ends respectively facing the forward end and the rear end of the coil portion, as claimed by Applicant. McVey is cited to show a discharge lamp in figure 1 with a cylindrical sleeve (item 18) whose both ends are open. McVey teaches that the sleeve provides end closure (column 1, line 68 thru column 2, line 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Soules' invention to include a scattering-prevention member, which is a cylindrical sleeve whose both ends are open, for covering surrounding of the coil portion, said both open ends respectively facing the forward end and the rear end of the coil portion as suggested by McVey for providing end closure.

Regarding claim 2, the combined reference of Soules and McVey disclose the discharge lamp according to claim 1, wherein as the heater, the coil portion is structured by a spiral wire with it being further wound spirally and without coming into contact therewith (Soules; see FIG. 1).

Regarding claim 5, the combined reference of Soules and McVey disclose the discharge lamp according to claim 1, wherein in the electrode, a forward end of the coil portion is arranged toward an interior of the sleeve without it exceeding an open end face of the sleeve at the forward end side thereof (McVey; see FIGS. 1-3).

Regarding claim 15, Soules discloses the method for manufacturing the discharge lamp electrode according to claim 13, but does not expressly disclose a sleeve welding step of inserting the heater into the inside of the cylindrical sleeve, and of welding the sleeve to any one of the first and second connection members is performed after the application step, as claimed by Applicant. McVey is cited to show a discharge lamp in figure 1 with a cylindrical sleeve (item 18) whose both ends are open. McVey teaches that the sleeve provides end closure (column 1, line 68 thru column 2, line 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Soules' invention to include a sleeve welding step of inserting

the heater into the inside of the cylindrical sleeve, and of welding the sleeve to any one of the first and second connection members is performed after the application step as suggested by McVey for providing end closure.

Regarding claim 16, the combined reference of Soules and McVey disclose a lighting system using the discharge lamp according to claim 1 (Soules; see FIG. 1).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkW
/Natalie K Walford/
Examiner, Art Unit 2879

/Sikha Roy/
Primary Examiner, Art Unit 2879